

**REMARKS**

Claims 2 through 79 are pending in this Application, of which claims 13 through 27, 35 through 40 and 42 through 44 stand withdrawn from consideration pursuant to the provisions of 37 C.F.R. § 1.142(b).

Claims 2, 3, 5, 7, 9, 11, 12, 28 through 33 and 41 have been amended, claim 1 cancelled and claims 45 through 79 added. Care has been exercised to avoid the introduction of new matter. Indeed, adequate descriptive support for the present Amendment should be apparent throughout the originally filed disclosure, including the originally filed claims. Applicants submit that the present Amendment does not generate any new matter issue.

**The Elected Claims**

In the June 24, 2005 response to the restriction requirement, Species A (claims 39 and 41) were elected, in addition to Subspecies (i) which include claims 1 through 12 and 28 through 34. Accordingly, claims 39 and 41 should not stand withdrawn but are elected. The Examiner's confirmation is solicited.

**The Examiner rejected the specification of the first paragraph under the first paragraph of 35 U.S.C. § 112 for lack of adequate descriptive support and adequate enablement.**

This rejection is traversed. Indeed, it is not apparent wherein the first paragraph of 35 U.S.C. § 112 provides any thought for the rejection of the **specification**. Accordingly, withdrawal of the rejection of the specification under the first paragraph of 35 U.S.C. § 112 is solicited as without any statutory basis.

**Claims 1 through 12 and 28 through 34 were rejected under the first paragraph of 35 U.S.C. § 112 for lack of adequate enabling support.**

For completeness Applicant will also treat herein the rejection (presumed objection) to the specification under the first paragraph of 35 U.S.C. § 112 for lack of adequate enabling support.

This rejection of claims 1 through 12 and 28 through 34 and presumed objection to the specification under the first paragraph of 35 U.S.C. § 112 for lack of adequate enabling support is traversed.

Firstly, as the Examiner should be aware, the specification is **presumed** enabling. This means that the Examiner has the **burden**, repeat **burden**, to explain why the specification is not enabling. *In re Brana*, 51 F.3d 1560, 34 USPQ2d 1436 (Fed. Cir. 1995); *In re Marzocchi*, 439 F.2d 220, 169 USPQ 367 (CCPA 1971). That burden is discharged by providing a scientific basis for technological reasoning to support the lack of an enablement rejection. Saying so does not make it so. The Examiner has not explained why one having ordinary skill in the art would not have been able to practice the claimed invention based upon the present disclosure. Accordingly, the Examiner has not discharged the initial burden of establishing a *prima facie* basis to deny patentability to the claims, or even object to the specification, for lack of adequate enabling support.

At any rate, notwithstanding the Examiner's disinclination to discharge the initial burden, Applicants would point out that the claimed invention is not, as the Examiner asserts, directed to a Bi-based optical guide wire itself. Rather, the claimed invention is directed to an optical amplification module, optical amplifier and optical communication system, each using the Bi

based waveguide. Applicants do not claim to have invented a Bi based optical waveguide in general. So much should be apparent from Kuroiwa cited in the Information Disclosure Statement, which reference does not teach or suggest the formation of a Bi-EDF. Applicants would also invite the Examiner's attention to the Sugimoto reference (LEOS99) cited in the IDS, which reference teaches  $\text{Er}_2\text{O}_3$  doped  $43 \text{ Bi}_2\text{O}_3 \cdot x \text{ B}_2\text{O}_3 \cdot (57 - x) \text{ SiO}_2$  glasses.

Based upon the foregoing it should be apparent that a *prima facie* basis to deny patentability to the claimed invention under the first paragraph of 35 U.S.C. § 112 for lack of adequate enabling support has not been established. *In re Brana, supra*; *In re Marzocchi, supra*. Applicants, therefore, submit that the imposed rejection of claims 1 through 12 and 28 through 34 under the first paragraph of U.S.C. § 112 for lack of adequate enabling support is not legally viable and, hence, solicit withdrawal thereof. Applicants also solicit withdrawal of the presumed objection to the specification under the first paragraph of 35 U.S.C. § 112 for reasons set forth above.

**Claim 2 was rejected under the first paragraph of 35 U.S.C. § 112 for lack of adequate enabling support.**

In the statement of the rejection the Examiner interpreted "B" to mean "Bi." This rejection is traversed.

As one having ordinary skill in the art would have understood, the symbol "B" means **boron**. So much should be apparent from the periodic table of elements.

Applicants again point out that the Examiner has failed to establish that one having ordinary skill in the art would not have been able to practice the claimed invention along with the supporting specification. *In re Brana, supra*; *In re Marzocchi, supra*.

Applicants, therefore, submit that the imposed rejection of claim 2 under the first paragraph of 35 U.S.C. § 112 for lack of adequate enabling support is not legally viable and, hence, solicit withdrawal thereof.

**Claims 1 through 12 and 28 through 30 were rejected under the second paragraph of 35 U.S.C. § 112.**

In the statement of the rejection the Examiner asserted that the word “type” renders the claims indefinite. This rejection is traversed.

The issue is whether one having ordinary skill in the art would have understood the scope of the claimed invention **when reasonably interpreted and in light of and consistent with the written description of the specification.** *Miles Laboratories, Inc. v. Shandon, Inc.*, 997 F.2d 870, 27 USPQ2d 1123 (Fed. Cir. 1993). That burden has not been discharged. Rather, Applicants submit that one having ordinary skill in the art would have recognized that the expression “Bi type” was intended to denote “Bi oxide based”. In order to expedite prosecution the expression “Bi type” has been changed to “Bi oxide based”.

Clearly, one having ordinary skill in the art would have no difficulty understanding the scope of the claimed invention, particularly when reasonably interpreted in light of and consistent with the written description of the specification. *Miles Laboratories, Inc. v. Shandon, Inc.*, *supra*.

Applicants, therefore, submit that the imposed rejection of claims 1 through 12 and 28 through 30 under the second paragraph of 35 U.S.C. § 112 is not legally viable and, hence, solicit withdrawal thereof.

**Claims 1, 3, 5, 7 and 9 were rejected under 35 U.S.C. § 102 for lack of novelty as evidenced by Kuroiwa et al.**

In the statement of the rejection the Examiner asserted that Kuroiwa et al. disclose an optical amplification module corresponding to that claimed, referring to, *inter alia*, Fig. 1 and certain portions of the patent text. This rejection is traversed.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of a claimed invention, such that the identically claimed invention is placed into the recognized possession of one having ordinary skill in the art. *Dayco Prods., Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 66 USPQ2d 1801 (Fed. Cir. 2003); *Crown Operations International Ltd. v. Solutia Inc.*, 289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002). There is a fundamental difference between the inventions defined in each of claims 3, 5, 7 and 9 and the device disclosed by Kuroiwa et al. that scotches the factual determination that Kuroiwa et al. disclose an optical amplification module identically corresponding to that claimed.

The Examiner should note that claims 3, 5, 7 and 9 have been placed in independent form. Each of claims 3, 5, 7 and 9 (claim 1 being cancelled) \_\_\_\_\_.

It is not apparent and the Examiner did not identify wherein Kuroiwa et al. disclose or even remotely suggest means for adjusting an optical power of pumping light as specifically set forth in each of independent claims 3, 5, 7 and 9. Simply put it is not apparent and the Examiner does not identify, as judicially required, wherein Kuroiwa et al. disclose a control unit set forth in each of independent claims 3, 5, 7 and 9. *In re Rijckaert*, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984).

Applicants, therefore, submit that the imposed rejection of claims 1, 3, 5, 7 and 9 under 35 U.S.C. § 102 for lack of novelty as evidenced by Kuroiwa et al. is not factually viable and, hence, solicit withdrawal thereof.

Applicants note the Examiner's mention of claim 33 in the eleventh enumerated paragraph. As claim 33 has not been rejected under 35 U.S.C. § 102, comments are not believed necessary. At any rate, for completeness, Applicants note that claim 33 depends from independent claim 3, the patentability of which has been argued *supra*.

For the Examiner's clarification, Applicants would note that claims 3, 5, 7, 9, 11 and 12 have been placed in independent form, claim 41 has been amended so that it does not depend from nonelected claim 40, claim 1 has been canceled and claims 2 and 28 through 33 amended to depend from independent claim 3.

#### **New claims**

**New claims 45 through 51** respectively depend on independent claim 5 and substantially correspond to amended claims 2 and 28 through 33. Kuroiwa et al. neither disclose nor suggest the claimed invention, notably the control unit cited in independent claim 5.

**New claims 52 through 58** depend from new independent claim 7 and substantially correspond to amended claims 2 and 28 through 33. Kuroiwa et al. neither disclose nor suggest the device defined in independent claim 7, notably the recited control unit.

**New claims 59 through 65** depend from independent claim 9 and substantially correspond to amended claims 2 and 28 through 33. Kuroiwa et al. neither disclose nor suggest the claimed invention, notably the recited control unit.

**New claims 66 through 72** depend from independent claim 11 and substantially correspond to amended claims 2 and 28 through 33. Kuroiwa et al. neither disclose nor suggest the claimed invention, notably the recited control unit.

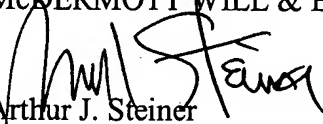
**New claims 73 through 79** depend from independent claim 12 and substantially correspond to amended claims 2 and 28 through 33. Kuroiwa et al. neither disclose nor suggest the claimed invention, notably the recited control unit.

Based upon the foregoing it should be apparent that the imposed objection and rejections have been overcome and that all active claims, including new claims 45 through 79, are free of the applied prior art. Favorable consideration is, therefore, solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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